AMENDMENTS TO THE SPECIFICATION

Applicants propose to replace the current abstract by a new abstract of increased length, namely:

A method for evaluating a natural gamma-ray activity within a borehole, comprises the steps of:

stabilizing the gain according to a method for stabilizing a gain of a gamma-ray detector for use in a downhole logging tool;

determining an interval count rate, the interval count rate corresponding to gamma-rays having an energy within a predetermined correction interval;

calculating a correction count rate from the determined interval count rate; and

using the correction count rate to evaluate the natural gamma-ray activity.

The method for stabilizing the gain of the gamma-ray detector for use in the downhole logging tool, comprises the steps of:

processing a backscatter peak of a full gamma spectrum such that the backscatter peak constitutes a reference peak;

determining a first rate, the first rate corresponding to gamma-rays having an energy within a first predetermined energy interval;

determining a second rate, the second rate corresponding to gamma-rays having an energy within a second predetermined energy interval; and

the first predetermined energy interval and the second predetermined energy interval straddle the backscatter peak.